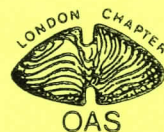




Mid-Summer, 1991

NEWSLETTER OF THE LONDON CHAPTER,
ONTARIO ARCHAEOLOGICAL SOCIETY
P.O. Box 2574, Station B, London, ON. N6A 4G9



91-4

It's time again for the:

Chapter Annual Summer Picnic:

August 10th, 2PM, at the home of Raymond Crinklaw. Baseball, food, fun and socializing will be available, so bring a glove, some food, a chair and some gossip, and find out what everyone has been up to this summer. For information on arrangements and what to bring, call Chapter Vice President Pat Weatherhead.



ANNUAL RATES

Individual\$15.00
Family\$18.00

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EXECUTIVE REPORT

Welcome to our mid-summer issue of KEWA! Some changes have happened over the last few months, not the least of which was Chapter President Megan Cook's appointment to the Henry Ford Memorial Hospital in Detroit. Now living in Windsor, Megan continues to travel back to London on a regular basis, and as such will continue to serve as Chapter President for the rest of the year. However, as far as day to day concerns go, members should contact Vice-President Pat Weatherhead, in order to ensure a prompt response to questions and requests.

On other fronts, the Executive is looking for someone who can replace Bob Mayer as the Chapter's representative on the London LACAC at the end of the year. Anyone interested in promoting archaeological and heritage concerns as a member of the city's heritage advisory committee should contact the Executive. We hope to have the position replaced before the end of the year, so the new representative can attend a couple of LACAC meetings with Bob so that he can show this person the ropes (not to mention all the political intrigue!).

Finally, the Executive is happy to report that sales of the *Archaeology of Southern Ontario* volume is moving at a fast clip. As of the end of July (5 months after the book was released), we have managed to move over 450 copies, almost half our stock! Continued sales and aggressive advertising should ensure that we sell close to 700 copies of the book by the end of the year!

SOCIAL REPORT

As you no doubt noticed on the cover of this issue of KEWA, this year's Chapter picnic will be held on August 10th, at 2 PM at the home of Raymond Crinklaw, Chapter member and local historian. Ray has a big spread just south of town, so there is lots of opportunity to get a game of baseball going, archery, or whatever else people might like to do. To find out more information on what to bring in the way of food and recreating, give Pat Weatherhead a call (her number is on the cover of the newsletter).

The weekend following the picnic, August 17 and 18, Chapter members are invited up to the Bruce for two days of archaeology at the Hunter's Point site, an undisturbed historic Odawa site located in the woods by Georgian Bay. This site is being directed by Jim Molnar, who promises spectacular archaeology and good company. Areas for camping out will be provided, so if you're itching to put trowel to soil, come on up to Hunter's Point. Space is limited to ten people, so if you are interested, contact Jim A.S.A.P. Jim is up there now, and can be reached by writing him at:

Jim Molnar
P.O. Box 203
Lion's Head, Ontario
N0H 1W0

EDITOR'S NOTE

The following two articles are provided by Jim Wilson of McMaster University. Reader's will note that one of the articles is on a site excavated in April of 1991, allowing KEWA once again to live up to its billing as having the quickest turn around time of any newsletter out there. Enjoy!

The Kittmer Site: A Middle Woodland Camp on the Upper Thames Drainage

Jim Wilson

Introduction

The Kittmer site (AhHf-6) is a small Middle Woodland camp located on an unnamed tributary of North Branch Creek about seven kilometers northwest of Embro, in Zorra Township. North Branch Creek is part of the Thames River drainage system, joining Mud Creek south of Embro to form the Middle Thames River. The Kittmer site was located in the summer of 1989 by Archaeological Research Associates during their survey of a proposed Union Gas pipeline.

The site lies in the heart of the Oxford Till Plain, a drumlinized upland area covering about 600 square miles, ranging in elevation from 300 to 365 meters above sea level. While the most clearly defined drumlins lie to the southeast in the Woodstock area, the topography surrounding the Kittmer site is still markedly rolling, with the site situated on a hilltop at least 15 meters above the unnamed stream (Figure 1). Soils in this area consist of grey brown luvisol, a type of Guelph Loam which developed under a mixed maple-beech forest (Chapman and Putnam 1984: 143-144).

Originally it was thought that the Kittmer site might represent a small Late Archaic camp. When the site was first encountered only three pieces of chipping debitage and the midsection of a large, straight-sided, Genesee-like biface (Figure 4c) were collected from the surface. A subsequent controlled surface pickup conducted later in the summer did nothing to alter this hypothesis, as only 15 further flakes and one broken, non-diagnostic biface were collected, scattered over an area of 900 m². Excavations were carried out over a four day period in late April of 1991, involving the screening of four one meter test squares, followed by the mechanical removal of the ploughzone from the 750m² which had not been impacted by previous pipeline construction. Of the four test squares, one was sterile, one contained two pieces of debitage, the third contained 9 pieces of debitage and a biface fragment, while from the fourth we recovered 6 pieces of debitage and three small sherds. This fourth test square was located directly above a feature which contained the partial remains of a Middle Woodland vessel. The mechanical stripping of the ploughzone revealed only one other feature containing cultural material, and no postmoulds were encountered.

Features

Feature 1, the feature from which the partial vessel was recovered, was roughly ovate in plan view and conical in profile (Figure 2). It measured 113 x 83 cm and extended for 26 cm beneath the ploughzone/subsoil interface. The northeastern end of the feature appears to have been impacted by cultivation, which has no doubt added to its length, and given it a somewhat irregular appearance. The feature fill consisted of dark brown topsoil, mottled with subsoil and charcoal flecks, and the margins of the pit had been leached to a lighter brown. A five liter float sample was processed, but there was no identifiable floral remains and less than one gram of



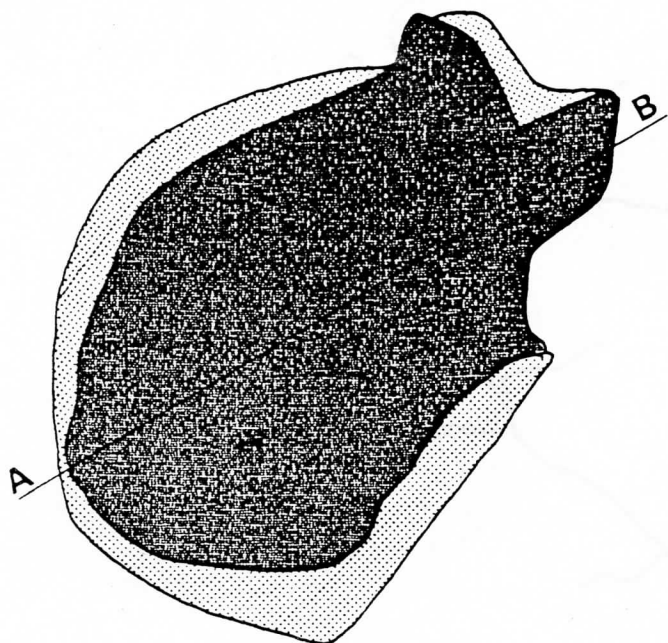
Figure 1: The Location of the Kittmer Site.

wood charcoal was recovered. It is possible that Feature 1 represents a pit that was dug by the occupants of the site, however, the somewhat irregular conical profile could also have been produced by a small treefall. Feature 1 contained one rim sherd, 9 body sherds and 13 sherd fragments.

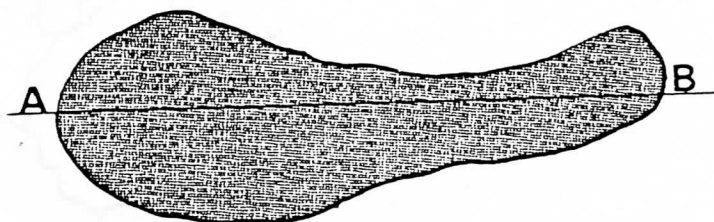
The origins of Feature 2 appear to be less ambiguous. It measured 207 x 57 cm and was only 11 cm deep, with both an irregular plan view and profile (Figure 2). In all likelihood this was a shallow, natural depression which was utilized for waste disposal. The fill of Feature 2 consisted of dark brown topsoil. Within this feature we recovered 3 bifaces, along with a biface fragment and 18 pieces of debitage.

Figure Two: Feature Plans and Profiles

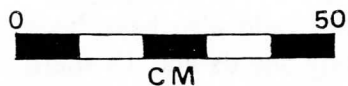
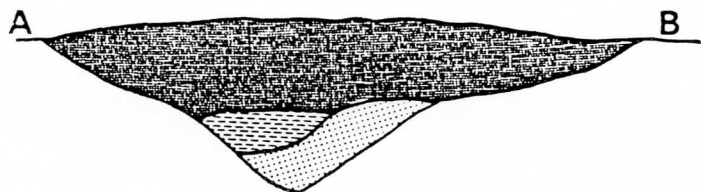
Feature One: Plan View



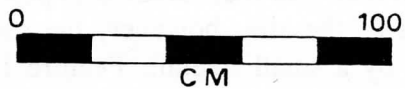
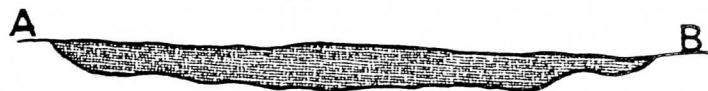
Feature Two: Plan View



Feature One: Profile



Feature Two: Profile



Subsoil with Topsoil Mottles



Light Brown Topsoil (Leached)



Dark Brown Topsoil

Ceramics

In total, 1 rim sherd, 10 body sherds, and 17 fragmentary sherds were recovered, all of which came from Feature 1 or the ploughzone immediately above. While there are no direct mends between the rim and the body sherds, on the basis of thickness, colour, temper, and tool size, all fragments seem to have originated from the same pot. The vessel was decorated with a dentate tool which measured 29.3 mm long, although the tool was utilized in such a manner that decorations appear almost to have a pseudo-scallop shell appearance (Figure 3a-b). The upper exterior band of decoration consists of obliques to the right, under which there were at least two rows of horizontal lines. Seven of the 10 body sherds are decorated with dentate rocker stamping, while the remainder are undecorated. The impressions on one large body sherd (Figure 3b) suggests that decoration on the lower portion of the vessel consisted of at least two bands of vertical rocker stamping, above an undecorated area. The interior of the vessel was decorated with a single row of obliques to the left, while the lip of the vessel was decorated with obliques to the right.

The vessel appears to have been of medium size, with an estimated orifice diameter of 15-20 cm. The rim measured 9.6 mm thick at the lip, and was also 9.6 mm when measured 2.5 cm below the lip. The body sherds averaged 9.4 mm in thickness, with a range of 8.4 to 10.6 mm. The vessel has a slightly constricted neck with a very lightly everted rim, and the lip is flat. There is clear evidence that the vessel was constructed using the coiling method and it was coarsely tempered with small granite fragments ranging in size from 1 to 5 mm.

One exfoliated sherd fragment has had its exterior surface wiped with either a handful of grass or small twigs. This surface treatment is not evidenced on either the exterior or the interior of any other sherds, and it may suggest the presence of a second vessel. However, on the basis of colour and temper, I believe this sherd probably originated from the lower portion of the vessel described above.

Lithics

The lithic sample from the Kittmer site consists of 53 pieces of debitage, 3 bifaces, 4 biface fragments, and one crudely made end scraper. Onondaga chert predominates, as there is only one Kettle Point flake and one Kettle Point biface fragment in the collection, along with one unidentifiable heat altered flake. While small cobbles of Onondaga chert are scattered throughout the local till, on the basis of macroscopic differences between this material and the cultural debitage, it appears that it was not being utilized by the site's inhabitants. The debitage consisted of 17 primary flakes (32.1%), 14 secondary flakes (26.4%), 22 broken flakes (41.5%), and 1 piece of shatter (1.8%).

Of the three whole bifaces which were recovered from Feature 2 (Table 1), two appear to have been rejected during manufacture. The first (Figure 4d) has a large hinge island on one side, while the second, shorter biface (Figure 4e) began to take on a distinctly twisted appearance during the bifacial thinning process. The third biface (Figure 4f) was successfully thinned, although it is somewhat irregular in shape. All three of these bifaces were manufactured from a similar low quality variant of Onondaga chert which contained a great deal of cortex, and

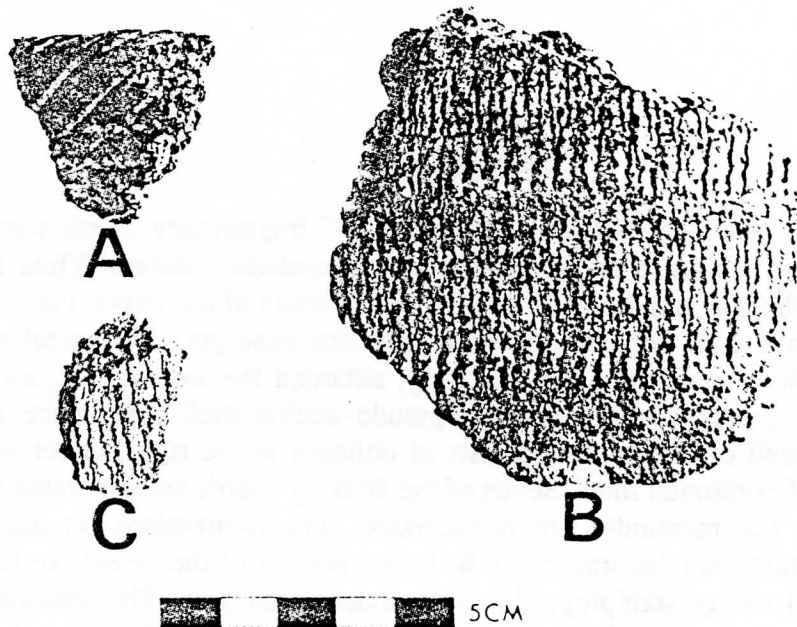


Figure 3: Kittmer Ceramics. A- rim sherd; B- body sherd with vertical rocker stamping; C- body sherd with rocker stamping and coil break.

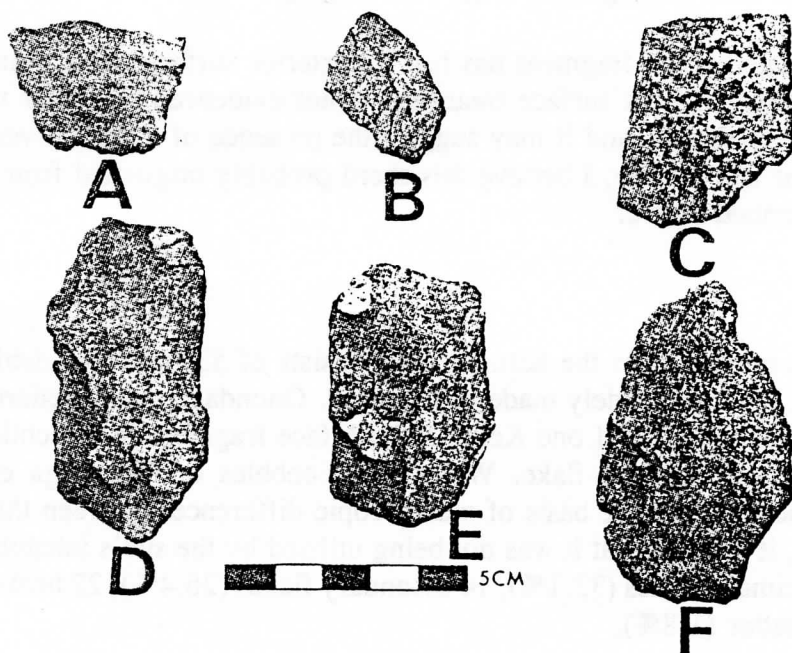


Figure 4: Kittmer Lithics.

none of the bifaces showed any signs of utilization when viewed under low-power magnification. The waste flakes from Feature 2 were generated from the same raw material, suggesting the contents of the pit may have been produced from a single knapping episode.

TABLE 1: Kittmer Site Biface Attributes

Figure Ref.	Max. Length	Max. Thickness	Max. Width	Material
4a	na	na	9.9 mm	Kettle Point
4b	na	na	na	Onondaga
4c	na	na	11.1 mm	Onondaga
na	na	na	na	Onondaga
4d	66.2 mm	11.1 mm	40.1 mm	Onondaga
4e	66.9 mm	20.3 mm	34.6 mm	Onondaga
4f	54.5 mm	21.1 mm	34.5 mm	Onondaga

The remaining bifaces are all quite fragmentary, although the Kettle Point specimen, collected during the surface investigations (Figure 4a), appears not to have been worked past the preform stage. It is also possible to note slight crushing along the lateral margin of the large, straight-sided mid-section which we originally thought was Late Archaic in origin, which may indicate that it functioned as a knife (Figure 4c).

Interpretations

Without floral or faunal data, suggestions concerning site function and seasonality are necessarily more speculative than one would ideally hope. Given the Kittmer site's "inland" location and our traditional understanding of the nature of Middle Woodland settlement patterns in southwestern Ontario (eg. Spence et al 1991: 148-156), it might be tempting to suggest that we have at last uncovered an example of the elusive microband wintering camp. While the Kittmer site may or may not have been occupied during the cold months, I believe that there are several good reasons for suggesting it does not fit the microband camp bill.

First and foremost in this assessment is the limited nature of the cultural material. If the site had been occupied by a nuclear or small extended family group for even part of a winter season, it would seem likely that a certain amount of generalized refuse such as fire-cracked rock, utilized flakes, and possibly even calcined faunal remains would have been recovered. While a structure on a wintering camp would not necessarily need to involve posts inserted into the subsoil and/or subsurface storage features, their absence, along with a lack of any hearth features, also argue against the microband camp hypothesis. The location of the site on a hilltop directly open to the north and west winds would also seem a strange choice of location for a wintering site, although forest conditions would have ameliorated this situation to some extent.

I believe that a more likely scenario is that the Kittmer site represents a small, briefly occupied camp which may have only been utilized over the course of several days. If this is the case then the Kittmer site can be added to a growing list of small special purpose sites which have recently been investigated along the middle and upper Thames River drainage (Fox '1982; Timmins 1989). In the absence of a radiocarbon date, the site could have been occupied at any time between ca. 300 B.C. and A.D. 700, as vessels similar to the one recovered from Feature 1 were common in the middle Thames drainage area throughout the Middle Woodland period (Wilson 1990).

Acknowledgements

I would like to thank Bud Parker and Dean Knight of Archaeological Research Associates for allowing me primary access to the Kittmer data. Thanks also go to Union Gas for providing generous funding for the excavations and analysis. A previous version of this report was commented on by Bud Parker.

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A Bad Analogy? Northern Algonquian Models and the Middle Woodland Occupations of Southwestern Ontario

Jim Wilson

Introduction

Ethnographic and ethnohistoric analogies from the upper Great Lakes area have played a prominent role in model construction for archaeologists interested in the nature of the Middle Woodland (B.C. 300 - A.D. 700) occupations in southwestern Ontario. By A.D. 900-1000 corn horticulture had spread north into Ontario from the American Midwest, reaching its effective limit in the Simcoe County area along the southern edge of the Canadian Shield. Because of the indigenous reliance on agricultural food production in the southern part of the province at the time of European contact, all direct information concerning pre-agricultural settlement must be generated from the archaeological record. Although Middle Woodland research in this area has been limited, there is a wide spread belief among archaeologists that the nature of these southern Ontario occupations are non-problematic, in that they followed a way of life similar in most regards to historically reported northern Algonquians (Trigger 1981:6).

In this paper I trace the origin of the northern Algonquian ethnographic analogy, and suggest that its extension to southwestern Ontario presents a series of serious analytic problems. In particular, I explore the difficulties involving the use of historic period analogies in prehistoric contexts, and the borrowing of analogies from significantly different environmental regimes. I also rely on recently excavated data from the Boresma site (Wilson 1990), a large Middle Woodland occupation located on the Thames River valley west of London, in order to suggest that settlement/subsistence systems in this area may have differed significantly from the contemporaneous strategies of hunter-gather groups located further north.

On a broader theoretical level, uncritical reliance upon ethnographically and ethnohistorically derived models has fallen under criticism from both the archaeological (Wobst 1978) and ethnohistoric communities (Bishop 1984; Trigger 1981). Wobst (1978:303) has suggested that the widespread reliance of archaeologists on the ethnographically produced model of hunter-gathers has resulted in a "Tyranny of the ethnographic record". Because ethnographies concerning hunter-gathers have focused almost exclusively on local level processes and behaviours in order to draw contrast between hunter-gatherer groups and encroaching agriculturalists, a parochial model has been constructed which presents a "worm's eye view of reality" (Wobst 1978: 304).

Wobst argues that this narrow research focus has led to the divorce of hunter-gatherer study from the study of patterns of regional and interregional interaction. The direct result of this trend has been the search for behavioral explanations based on local phenomenon, as exemplified in Lee's "two hour walk territory" or Jarman's "catchment areas" (Wobst 1978:304). These analytic constructs have been eagerly incorporated by archaeologists, resulting in the reinforcement of "overwhelming ethnographic stereotype that hunter-gatherers articulate exclusively with local variability, and that regional and interregional process among hunter-gathers is a symptom of degeneration and culture contact" (Wobst 1978: 304).

While my own concerns are directed more towards the dangers of uncritical reliance on ethnohistoric data, I certainly agree with Wobst's assertion that archaeologists should attempt to liberate themselves from previous conclusions concerning hunter-gatherers. Ethnographic research and analytic models should be borrowed with extreme care, and archaeologists should also beware of the uniformitarian assumption that the cultural variation manifest in the ethnographic record encompasses all possible hunter-gatherer organizational schemes.

Trigger (1981:6) has warned of over reliance on ethnohistoric data for archaeological reconstruction in the Northeast, suggesting that they are "neither as complete or as reliable as they once were assumed to be". With specific reference to the use of the northern Algonquian analogy in southwestern Ontario, he suggests that its' historical genesis can be traced to the pre-1952 assumption that Iroquoian cultures migrated into southwestern Ontario, displacing north the previous occupants who had been ethnically proto-Algonquian. With the development of an *in situ* hypothesis of Iroquoian development, the Middle Woodland occupants of southwestern Ontario are no longer viewed as ethnically Algonquian, although they are still assumed to have been very much like Algonquians in terms of social structure and economic organization (Trigger 1981:5). This use of the northern Algonquian analogy without any evidence of historical continuity provides reason enough to be suspicious of its utility. However, as Trigger (1981:6) also points out: "[i]t seems highly unlikely....that prehistoric hunter-gatherers living in the rich Carolinian Biotic Province of extreme southwestern Ontario would have a seasonal round or social organization precisely similar to that recorded in historic times for the Ojibwa of central and northern Ontario."

The Saugeen Complex and Middle Woodland Archaeology in Southwestern Ontario

The Middle Woodland Occupations of Southwestern Ontario have been divided into two major culture complexes. The Western basin culture, or what has more recently been called the "Couture Complex" (Spence et al 1990), occupies the extreme southwestern portion of the province, while it has been proposed that the Saugeen culture extends south from the Bruce Peninsula to the Lake Erie shore, and east to the Grand River. Elsewhere I have suggested that it is highly unlikely that these rubrics represent real prehistoric sociopolitical groups (Wilson 1990). A more likely model has been presented by Spence et al (1990: 143), in which they suggest that, when the Middle Woodland record is more completely understood, a picture will "emerge of a series of localized complexes extending across the southern part of the province, each only marginally different from its neighbours but more easily distinguishable from its more distant contemporaries." At present it appears that these "localized complexes" are centered along the major drainages such as the Grand, Saugeen, Maitland, Ausable, Sydenham and Thames, or in areas of particularly rich resources such as Long Point, Point Pelee, Walpole Island and Burlington Bay (Finlayson 1977; Wilson 1990).

In this paper I focus on the area originally outlined by Wright and Anderson (1963) as the Saugeen Focus, largely because a great deal more research has been carried out in this area than in the poorly understood Couture complex territory. While I will employ the term "Saugeen", I use it only as a gloss for the territory originally outlined by Wright and Anderson, and not as a signifier for a culturally discrete entity, or even an area of homogeneous settlement/subsistence patterns.

Prior to Wright and Anderson's (1963) excavations at the Donaldson site, Middle Woodland sites located in southwestern Ontario were believed to be western expressions of the Point Peninsula 2 focus, which had been identified in upper New York State and southeastern Ontario. Upon attempting to apply the established Point Peninsula ceramic typology to their newly excavated collection, Wright and Anderson realized that there were significant ceramic differences between the two areas, and suggested the establishment of the "Saugeen Focus" to account for the observed variability. While very little research had been conducted on Middle Woodland sites throughout the remainder of southwestern Ontario, on the basis of preliminary surveys by Lee (1951, 1952), Wright and Anderson (1963:50) tentatively set the boundaries to include the Saugeen, Grand and upper Thames drainages, along with the north shore of Lake Erie from the embouchure of the Grand to the Port Stanley area.

When Wright and Anderson first defined the Saugeen focus, they presented a two-part seasonal settlement/subsistence cycle which was likened to the historically documented group movements of the northern Algonquians. Wright and Anderson developed a macro-band/micro-band model in which large groups gathered at areas favourable for the exploitation of spawning fish in the spring and summer months, before migrating to winter hunting territories in the late autumn (1963:49). The Donaldson site, the type site for the Saugeen focus, is located on a series of terraces overlooking a minor rapids of the Saugeen River about 13 kilometers upriver from Lake Huron. On the basis of the large quantities of fish bone which were recovered, along with a general lack of hunting related tools, Wright and Anderson interpreted the site as a spring/early summer macro-band camp:

The carriers of the Saugeen Focus appear to have followed a way of life similar to the historic northern Algonkians. On the basis of present information, all the components of this focus appear to represent fishing stations which were occupied during the spring and early summer. It was during this period of ready acquisition of abundant food in the form of fish that the major components of the Saugeen Focus are believed to have formed. Numerous family camp-sites representing the winter settlement pattern are inferred to be scattered throughout the area of the Saugeen Focus, although their archaeological presence would be difficult to detect.

Wright and Anderson 1963:57

The next major study of the Saugeen focus came with Finlayson's (1977) investigations at the Donaldson, Inverhuron-Lucas, and Thede sites. Finlayson agreed with Wright and Anderson that the Donaldson site was a spring-early summer encampment, however he suggested that it was probably abandoned in the early summer in favour of a dispersed settlement system based on the exploitation of lakeshore resources.

The type site for this aspect of the settlement/subsistence cycle is Inverhuron-Lucas, located on the Lake Huron shore 30 kilometers south of Southampton. While faunal preservation at the site was poor due to acidic soil conditions, the presence of raspberries, elderberries, cherries, dogwood berries, beech nuts and butternuts all suggest that this site was occupied during the late summer and early fall. Finlayson points out that there are a series of Middle

Woodland camps which he also suspects are late summer/fall occupations strung along the Lake Huron shore between the mouth of the Saugeen River and the Pine River, 55 kilometers to the south. The winter aspect of the settlement subsistence cycle has proved somewhat more problematic to pin down, and to date no positive identification has been made of a Saugeen winter camp in southwestern Ontario. Finlayson (1977), following Wright and Anderson, suspects that there are as yet undiscovered winter camps located inland from the Lake Huron shore. Kenyon (1979:15), on the basis of surface survey along the Maitland Drainage, has suggested that these camps may be located adjacent to wetlands such as the Hullett swamp, which would be preferred yarding areas for deer.

While there has been little Middle Woodland research conducted in southwestern Ontario since Finlayson's excavations, through a series of review articles (Spence et al 1979; Spence and Pihl 1984; Spence et al 1984; Spence and Fox 1986; Spence et al 1990), the three part round has become increasingly reified, and extended for use throughout the "Saugeen" area. In the remainder of the paper I attempt to illustrate why there are such serious problems with the extension of this model. While I agree that in some areas, such as the Bruce peninsula, it may have a degree of analytic utility, in the areas further to the south it provides more of an encumbrance than an aid.

Environmental Differences

Perhaps one of the most serious problems in the extension of the northern Algonquian ethnographic analogy to southwestern Ontario is that there is a very real difference in resource potential between northern and southern Ontario (Cleland 1966; Thaler and Plowright 1973). The northern Algonquian analogy is drawn from groups which inhabited the Canadian Biotic Province, characterized by a relatively colder environment, and Lake Forest type of cover, including all types of boreal forest trees present, intermixed with cedar, white and red pine, Norway pine, alder, yellow birch, beech, elm, hemlock, aspen, basswood, and sugar maple (Mason 1981:59). The Saugeen complex, however, lies to the south of the Canadian Biotic Province, encompassing parts of both a Canadian/Carolinian transition zone and the northern fringe of the Carolinian Biotic Province. This region is characterised by a milder environment, with forest cover in this areas characterized by a preponderance of broad leaf species, including oak, hickory, maple, beech, walnut, butternut, elm, tulip, ash, basswood, sycamore, and cottonwood (Cleland 1966).

While Thaler and Plowright (1973) are correct in pointing out that the boundaries between these biotic provinces are continuous rather than clear demarcations, there are significant environmental differences as one travels from south to north in Ontario. Perhaps one of the most important of these differences in terms of prehistoric settlement was the distribution of white-tailed deer. White-tailed deer are extremely abundant in the Carolinian Biotic Province. Ethnohistoric sources suggest that they provided an important dietary component for groups located in this region, even after the introduction of agriculture (Trigger 1976). At the Boresma site, 80% of the identifiable mammal bone was deer (Wilson 1990).

In contrast to this rich resource in the southern part of the province, Cumming and Walden suggest that, at the time when Europeans first arrived in southern Ontario, deer would

not have been present north of the Canadian Shield (1970:4-5). The widespread colonization of deer north of the Canadian Shield occurred only in the mid 1800's with the advent of large scale logging which created near ideal deer habitat. The first deer appeared on Manitoulin Island about 1880 and at the Sault in 1887 (Cumming and Walden 1970: 4-5).

The lack of deer in the area from which the northern Algonquian analogy originates, and the abundance of deer which was available in the Saugeen area, may have had a significant effect on the size of residential units, especially during the winter months. It is known from ethnohistoric sources that a preferred method of deer harvesting involved large numbers of individuals constructing a brush fence in order to drive deer in a constricted area in which they could easily be dispatched. If this method of deer capture was practised during the Middle Woodland period in southwestern Ontario, winter dispersal into small family units may not have been required. Deer, unlike moose or other large ungulates, have a tendency to yard in large numbers during periods of deep snow, providing a rich resource, most effectively harvested cooperatively.

While I will return to the archaeological evidence later in the paper, it is interesting to note that not one convincing example of a Middle Woodland family wintering camp, such as those which were assumed to be located inland by Wright and Anderson (1963), has yet to be located. This inability to locate winter encampments has not been solely an Ontario archaeological problem. As Griffin (1979:278) notes, somewhat tongue in cheek, in his review of recent Middle Woodland studies in the northeast, "[s]omeone ought to investigate where many of these populations hibernated, because they seem to have operated only in the spring, summer and fall."

One possibility which I will explore in relation to the archaeological data recovered from various sites along the middle Thames drainage is that the settlement/subsistence round in these more southerly areas involved a great deal more residential stability than originally expected. I suggest that large riverine occupations, such as the Boresma site, served as basecamps occupied on and off throughout the course of the year, providing the focal point for a local group's movements.

Historic Period Analogies in Prehistoric Contexts

Even when direct cultural continuity can be demonstrated, the use of early historic period documents in the reconstruction of precontact social systems may prove to be much more problematic than many archaeologists have suspected (Bishop 1984; Trigger 1981). Bishop suggests that a false sense of security characterizes scholars who rely on historical data to reconstruct pre-contact conditions (1984:24): "What creates the difficulties of interpretation for the ethnohistorian is that shortly after European trade goods became available, Indian behavioural changes involving greater emphasis on obtaining pelts seem to have been incorporated in such a way that, given the sketchy evidence, it is difficult to distinguish prehistoric from historic patterns." (Bishop 1984: 24).

One consideration crucial to the extension of the northern Algonquian analogy to southwestern Ontario, yet almost impossible to explore given the fragmentary nature of the early

ethnohistoric reports (Bishop 1984), is that the historically reported pattern of winter dispersal may have been stimulated as much by a desire to hunt fur-bearing animals as it was the result of some strict environmental necessity. Hickerson suggests that among the Ojibwa the winter hunting group was: "in every sense a unit adapted to the specific requirements of the fur trade in an inhospitable environment; directly adapted when the hunting group was concerned with trapping; indirectly when it existed as a subsistence hunting or fishing unit." (1963: 18).

Archaeologists who have been eager to employ the northern Algonquian analogy, especially in relation to winter dispersal of single family units, should be aware of ethnographic research which suggests that these wintering units may have been somewhat larger than originally suspected. Bishop (1974:162) reports that historical documents pertaining to the Osnaburgh Ojibwa indicate "that hunting groups of were considerably larger than extended families or groupings of two nuclear families." In fact, the average size of six hunting groups during the winter of 1858 was a rather startling 30 individuals, with a range of 20-40 (Bishop 1974:162). It appears that whenever possible, groups of closely related hunters would prefer to stay together for the purpose of hunting moose and caribou, which was most effectively accomplished through cooperative efforts (Bishop 1974:208; Rogers 1963). It seems likely that cooperation would have been even more critical before the introduction of firearms, whether hunting moose and caribou in the upper Great Lakes area, or harvesting deer in the broadleaf forests of southern Ontario.

The Archaeological Evidence

As Keene (1981:179) has pointed out, there is a tendency on the part of archaeologists to think of hunter-gatherers as following a "seasonal round focusing on specific resources at a variety of locations at different times of the year." This model has been called into question by numerous researchers who suggest that the degree of residential stability of hunter-gathers is related to the stability of their resource base (eg. Rick 1980). In the following section I present an alternative model for at least some parts of southwestern Ontario during the Middle Woodland period.

Based on my own research along the middle course of the Thames River drainage in Middlesex County (Wilson 1990), I argue that the occupants of this area evidenced a great deal more residential stability than would be expected given the northern Algonquian analogy. I suggest that the large riverine occupations such as the Boresma site, rather than serving exclusively as spring/summer macro-band camps, served as base camps occupied on and off throughout the course of the year.

The Thames River drains an area of 2200 square miles, flowing east to west along the northern limit of the Carolinian Biotic Province. The majority of my own research has been conducted on the Boresma site, which is located 18 kilometers southwest of London. The site is situated on a slight rise in the floodplain, two meters above an abandoned channel. The modern Thames flows 175 meters west of the site, although 19th century maps show the river in an old channel which traversed the western edge of the site before turning sharply east, flowing back up its eastern margin. The site was therefore situated at the top of a large U, with

access to the river on either the east or west end. Four radiocarbon dates from the site range from B.C. 180 \pm 130 to A.D. 690 \pm 90 (Wilson 1990:79).

Several problems are manifest when attempting to apply the established three part settlement-subsistence model to the middle Thames area, not the least of which is that this area is relatively landlocked. Lake Erie is the closest of the Great lakes, lying 34 km to the south of the site, but there is no direct water access, as the Thames drainage basin is separated from the Talbot Creek drainage by a glacial end moraine running from Lynhurst to Wallacetown. More importantly, it appears that the short drainages which flow south into lake Erie, such as Catfish Creek, had their own resident Middle Woodland populations (Poulton 1980). If the Middle Woodland inhabitants of the Middle Thames were "land locked", both by geographical; distance and by other groups, then the late summer/early fall lakeshore aspect of the seasonal round proposed by Finlayson may not be applicable to this area.

While absence of a lacustrine aspect in the middle Thames drainage strains the three part seasonal round proposed for the Saugeen area, the faunal assemblage from the Boresma site is even more suggestive of differences in settlement/subsistence pattern. Not surprisingly, given the site's location, fish remains make up the bulk of the sample (Table 1). The large numbers of walleye and sauger elements (70.4% of the identified fish bone), and sucker remains (26.7%), provide good evidence that the site was in use in the spring and early summer months. Walleye are early spring spawners, moving upriver during March and April (Scott and Crossman 1973:100). April/May occupancy of the site is similarly inferred from the sucker remains, since this fish also moves upriver to spawn during these months.

Table 1: Faunal Findings at the Boresma Site by Zoological Class

Class	Frequency	Percent Total
Fish	29,743	65.13
Mammalia	13,654	29.90
Reptilia	987	2.16
Clams	408	0.89
Amphibian	136	0.30
Aves	28	0.06
Class Uncertain	712	1.56
TOTAL	45,669	100.00

Good evidence of an early summer occupation at Boresma is indicated by a high frequency of turtle bones (n=987). Turtles are especially vulnerable at this time of year when they venture onto dry land to lay their eggs. Other indications of warm season occupations includes clams, which are only available when the river is ice free, and frogs and toads which are active during the summer months. There were also two immature bird wing bones recovered which indicate a late spring or early summer presence (Prevec 1990).

Evidence for other seasons of occupation can be determined by aging mammal elements. One immature beaver foot bone could only have been taken in the late summer or early fall (Prevec 1990). Even better evidence comes from two deer skulls which had recently lost their antlers. Deer usually drop their antlers following mating in December and regrowth begins in early spring. The presence of the two deer skulls with their antlers recently fallen (they only two skulls complete enough to observe this attribute), points convincingly to an occupational presence at the Boresma site during the early winter months.

The general diversity of the Boresma faunal sample, while not providing any direct proof of the seasonality of the site, also suggests that this was not a special purpose occupation. Deer and fish bone dominate the assemblage; however, twenty other species of mammal are present, as well as six species of reptiles, seven species of birds, four species of clam and two amphibian species (Prevec 1990).

The Boresma artifact collection, like the faunal sample, is also very generalized. While only 4.9% of the site area was excavated, we recovered 93 projectile points, 20 bifaces, 67 biface fragments, 21 end scrapers, 13 hafted scrapers, 9 drills, 4 side scrapers 3 tip scrapers, 36 pieces esquillees, 165 rimsherd vessels, and various ground stone and bone tools. This is a very diversified collection, indicative of the varied activities I believe were being carried out at the site. The large sample of projectile points and scrapers also helps to demonstrate the importance of hunting and animal processing at the site, while the recovery of 12,083 pieces of lithic debitage, 31 random flake cores, 46 bipolar cores, along with hammer stones, anvil stones, and antler tine pressure flakers, suggests that many of the bifacial tools were being manufactured on the site.

One way of using the Boresma artifact inventory to approach the question of site function is to carry out a comparison with the Donaldson site collection. While a comparison of these assemblages is useful in highlighting the differences between these two large riverine sites, a certain amount of caution must be exercised because the sites were not excavated in exactly the same fashion. The Boresma site was not threatened with development, therefore the decision was made to adopt a slow, thorough approach, screening all ploughzone through 1/4 inch mesh. This process provided us with 65 of our 93 projectiles and a great majority of our cores. At the Donaldson site, a salvage approach was employed because the main occupational area was threatened with construction of cottages, and there is little doubt that had the ploughzone been screened more lithic tools would have been recovered. However, nearly seven times the Boresma site area was excavated at Donaldson, and a large midden and all of the cultural features were carefully screened (Finlayson 1977). This may help balance the fact that the ploughzone was not examined and allow for some careful comparisons to be made.

Perhaps the most interesting comparison concerns the ratio of rimsherd vessels to projectile points. This is particularly pertinent, as the low ratio of projectile points to pots at Donaldson was one of the original reasons why Wright and Anderson (1963:46) classified the site as a spring/summer fishing station. During the Donaldson excavations conducted by Finlayson, 14 projectile points were collected along with the parts of 351 rimsherd vessels: a ratio of .04 projectiles per pot. At the Boresma site we recovered 93 projectiles and 165 rimsherd vessels: a ratio of .56 projectiles per pot, some 14 times as high as at Donaldson. Even

if the Boresma sample is restricted to the 20 projectiles and 95 vessels recovered from the midden and pit features, the ratio of .21 projectiles per pot is still 5.25 times the Donaldson site ratio (Wilson 1990:97). The frequencies of chipping detritus on the two sites is also revealing, as 12,083 pieces of waste chert were recovered during the Boresma site excavations, while only 1,623 were collected from the 1,925 square meters of excavation at the Donaldson site.

These comparisons suggest that the Boresma site was serving as something more than strictly a spring/early summer macro-band camp. The low frequencies of lithic waste and the ratio of projectile points to ceramic vessels at Donaldson seems to be consistent with its interpretation as a fishing station. However, the high rate of recovery of hunting related tools and the debris associated with their production at Boresma, points convincingly to its utilization during other seasons and for purposes other than fishing.

A comparison of the mammal bone assemblages from the two sites indicates that deer comprise over 80% of the Boresma identified sample, while at Donaldson beaver was more common (40.7%), with deer bone contributing only 25% to the assemblage. It is possible that deer were less common on the upper Bruce Peninsula during the Middle Woodland period than in the Middle Thames area; however, if the majority of the Donaldson occupational debris was generated from a spring and early summer encampment, it is quite likely that large game animals would not have been heavily pursued while other resources were abundantly available. Once again I believe these figures are consistent with the interpretation of the Donaldson site as a fishing station.

A growing body of data from other Middle Woodland sites in the middle Thames drainage area can also be used to support the hypothesis of greater residential stability at the Boresma site. If Boresma was a base camp, then there should be other small special purpose extractive camps scattered throughout its hinterland. If only occupied for short periods of time and for special purposes, these satellite occupations should not have generalized artifact and faunal assemblages. Instead, special purpose sites, or what Binford has termed "field camps" (1980), should have a restricted inventory of artifacts which relate to the particular site's function.

To date there is data available from at least 8 small Middle Woodland occupations along the middle Thames drainage (Fox 1982; Poulton 1985; Timmins 1989; Wilson *infra.*), none of which appear to have functioned as single or extended family wintering camps. The most completely reported of these sites is Sibelius, located only a kilometer downriver from the Boresma site (Fox 1982). Fox suggests that activities at this site were short term and transitory in nature. Although Sibelius is located on a slight rise directly beside the Thames, only one element of fish bone was recovered in a faunal assemblage otherwise dominated by deer. Fox believes that the site functioned as a deer procurement and processing station. This is supported by the general abundance of deer foot and lower limb bones, which indicates that deer were being butchered for consumption elsewhere (1982: 32). Chert and slate knives were also common, along with a high percentage of biface thinning flakes indicative of resharpening rather than the production of tools. This would also seem consistent with Fox's interpretation of the Sibelius site as a deer processing station.

The Butler's Woods site is a very small Middle Woodland occupation located 20 kilometers to the west-southwest of the Boresma site. While the entire site was excavated (Timmins 1989), only 93 pieces of lithic debris, 2 points, 1 biface, 3 utilized flakes and portions of 2 vessels were recovered. Based on the scarcity of material remains, Timmins has suggested that it was probably occupied for a very short time, maybe only a matter of one or two weeks. It would appear that the Kittmer site (Wilson *infra.*), located just to the northwest of Embro on a tributary of the middle Thames River, also served a similar function.

Other small sites along the middle Thames have been less completely reported, although they too do not appear to be wintering sites. All of these remaining sites are located around the margins of kettle ponds or bogs within the limits of London (Poulton 1985; Timmins 1989). Timmins suggests that the small camps located in the Pond Mills area of southeast London probably functioned as hunting camps. They appear to be short term occupations, with no appreciable buildup of occupational debris. The West Bog site produced 2 Middle Woodland points, while the slightly larger East Bog site produced a series of Middle Woodland points and portions of 3 vessels. In the absence of floral or faunal data the seasons during which the sites were occupied is difficult to assess, although Timmins believes they may have been oriented towards migratory avian species which would have been attracted to the pond environments during the fall.

Two small, undisturbed Middle Woodland sites in southeast London were partially excavated in the summer of 1989 (Timmins 1989). The sites were located on opposite sides of a small bog which probably was a shallow pond during the period of occupation. While the final report on these sites is not available, post moulds were numerous, and one possible structure measuring 4x4 meters has been tentatively defined. Timmins (1989: 15), on the basis of the "sheltered inland location" of the sites suggests they may have been occupied in the fall and winter. In the absence of the final report, I agree that the sites may have been occupied in the fall, but see difficulties with the wintering camp interpretation. The presence of a potential structure with an internal hearth provides possible evidence for a cold weather interpretation. However, the pond environment which seems key to the site's placement would have been unproductive after freeze up, which occurs in the late autumn or very early winter. The suggestion that the "sheltered inland location" of these sites indicates that they served as winter camps may be equally suspect. Timmins (1989:15), having proposed a non-lacustrine adaptation for Middle Woodland groups on the middle Thames, does not indicate what these sites were "inland" from. Almost any location along this stretch of the Thames River would meet this criterion, in particular locations on the valley floor. Timmins does mention that points dominate the lithic assemblages, and it is possible that these two sites were repeatedly occupied fall hunting camps.

Conclusions

In proposing that the Boresma site is a base camp, I am not suggesting that it was continuously occupied year round. Rather, I believe it served as the central point from which a small community harvested resources throughout their territory. There could have been many reasons why a base camp would be abandoned, including problems such as insects and flooding, involvement in trade, or the need to establish temporary special purpose camps closer to areas

On the basis of the proceeding archaeological evidence, it would appear that there is a great deal more heterogeneity in settlement/subsistence strategies in the area defined as "Saugeen" than originally expected. In areas such as the upper Bruce Peninsula, which is situated along the southern fringe of the Canadian Biotic Province, the northern Algonquian ethnographic may still retain some degree of analytic usefulness. However, further south in the Carolinian Biotic Province, at least one alternative adaptive strategy involved a distinctive non-lacustrine settlement/ subsistence cycle involving more residential stability than exhibited by groups further north. At present, I would limit the use of the term "Saugeen" to the Middle Woodland occupations along the Ausable, Maitland, Saugeen and Nottawasaga drainage systems, where there is at least limited evidence to support the three part seasonal round model proposed by Finlayson (1977). I prefer the term "Middle Thames River Complex" for Middle Woodland sites located along the middle reaches of the Thames (Wilson 1990: 121-129).

It is possible that even in the northern "Saugeen" area the Algonquian analogy places a strain on our ability to envision alternative patterns of behaviour. During the last twenty years Middle Woodland research in southwestern Ontario has been largely limited to salvage excavations (Spence and Pihl 1984). This widespread loss of interest in furthering our understanding of the Middle Woodland period has most often been explained in terms of a reorientation of archaeological inquiry towards studies of settlement patterns, for which Iroquoian sites are particularly conducive. I suggest that another equally important explanation can be traced to the over reliance on the northern Algonquian analogy. With the combination of Finlayson's excellent research on the Bruce Peninsula and the apparent fit of this material with the ethnohistoric reports from further north, there has developed a widespread belief among all but hardcore Middle Woodland archaeologists that the major settlement/subsistence problems of this time period have been solved.

Spence et al's (1990) proposed model that southwestern Ontario was spanned by a series of small localized complexes, each marginally different from its immediate neighbours, but easily identifiable from more distant groups, comes as a breath of fresh air in this stultifying atmosphere of homogeneity. My own research along the Middle Thames drainage prompts me to agree with these authors, although I believe there is a very real possibility that even adjacent complexes may be found to differ significantly in terms of subsistence strategies. In this scenario the subsistence rounds of groups located inland on the headwaters of major drainages such as the Thames or Grand, should be found to differ substantially from groups with a lacustrine aspect to their settlement cycle. The possibility that southwestern Ontario was occupied by a series of small localized complexes, each exploiting unique environmental opportunities within their own territory, may go a long way towards explaining patterns of interaction between these groups, which, in the past has been explained largely in terms of exchange of women (see Finlayson 1977).

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